

C4  
48. The drip chamber system of claim 41 wherein the vent is integral with the outer surface of the fluid reservoir.

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C5  
59. A cerebral spinal fluid (CSF) drip chamber in a cerebral spinal fluid (CSF) drainage system comprising:

a cerebral spinal fluid containing tube having an outer surface; and,

a vent in fluid communication with the tube, the vent having a filter made of a porous material wherein the pore size of the filter is about 3  $\mu\text{m}$ ,

whereby underdrainage and overdrainage of cerebral spinal fluid from a patient, to the tube, may be controlled.

66. A cerebral spinal fluid (CSF) drip chamber in a cerebral spinal fluid (CSF) drainage system comprising:

a cerebral spinal fluid containing tube having an outer surface; and

a vent in fluid communication with the tube, the vent having a filter made of a porous material, the pore size of the filter ranging from greater than .45  $\mu\text{m}$  to about 5.0  $\mu\text{m}$ , the filter being flush with the outer surface of the tube,

whereby underdrainage and overdrainage of cerebral spinal fluid from a patient, to the tube, may be controlled.

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#### REMARKS

The applicants thank the Office for the careful examination of this application evident in the Office Action of October 1, 2002, and the grant of the petition to revive that preceded it. The applicants specifically thank the Office for the re-numbering of the claims. The applicants confirm the numbers used in this response are the new numbers resulting from the re-numbering.

Using those numbers, the applicants thank the Office for the statement that claims 23 through 58 are allowable over the prior art of record. The applicants agree. This response amends claims 24-30 and 42-48 to provide that claims 23 through 58 are consistently directed to a drip chamber system as claimed, maintaining the allow-ability of the claims. This response also adds “the” to claim 23 where needed for better grammar.

The Office is also thanked for approving the drawings.

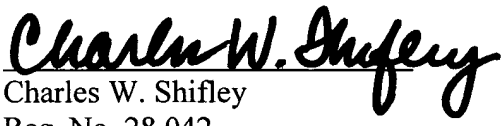
Turning to the pending rejection of claims, there were two grounds for rejection in the Office Action of October 1, 2002, and it is believed both have been obviated by amendments to claims 1, 5, 59 and 66, and thereby amendments to all pending claims. The two grounds were: (1) claims 1-6 and 9-11 were rejected under 35 USC 102(b) as being anticipated by Kashmer et al US Patent 4,465,485, and (2) claims 1-6, 8-11 and 59-70 are rejected under 35 USC 102(e) as anticipated by Borman et al US Patent 6,336,916. (Claims 6 and 12-22 are canceled.) The applicants accept the Office Action’s position that the recitation of a CSF drainage system in the preamble as previously submitted was not to be given patentable weight because of the rule of cases including *Kropa v. Robie*. The applicants always intended to claim their CSF drip chamber as such in claims 1-6, 8-11 and 59-70. To direct these claims to the CSF drip chamber the applicants always intended to claim there, the applicants have now described the CSF drip chamber in these claims explicitly as a “cerebral spinal fluid (CSF) drip chamber.” With this amendment, the rule of *Kropa v. Robie* is rendered inapplicable, the description of the CSF drip chamber as a CSF drip chamber takes effect, and both grounds of anticipation are obviated. Concerning any possible future consideration of obviousness, the rule of cases

such as those cited by the applicants, including *In re Wright*, is applicable, and the claims are proper for allowance, for all the reasons of the Amendment Under 37 C.F.R. 1.116 signed by Mr. Kinghorn and dated June 28, 2000.

In light of the allow-ability of all pending claims, prompt favorable action is solicited.

Respectfully Submitted,  
Banner & Witcoff, Ltd.

Date: January 2, 2003

By:   
Charles W. Shifley  
Reg. No. 28,042

## APPENDIX

### **Version With Markings To Show Changes Made**

1. A cerebral spinal fluid (CSF) drip chamber in a cerebral spinal fluid (CSF) drainage system comprising:

a [rigid] cerebral spinal fluid containing tube, the tube having an outer surface;  
and

a vent in fluid communication with the tube, the vent having a filter made of expanded polytetrafluoroethylene (ePTFE), wherein the pore size of the filter ranges from greater than .45  $\mu\text{m}$ , [the filter being flush with the outer surface of the tube,]

whereby underdrainage and overdrainage of cerebral spinal fluid from a patient, to the tube, may be controlled.

4. (Amended) A cerebral spinal fluid (CSF) drip chamber in a cerebral spinal fluid (CSF) drainage system comprising:

a cerebral spinal fluid containing tube, having an outer surface; and,

a vent in fluid communication with the tube, the vent having a filter made of a hydrophobic porous material wherein the pore size of the filter ranges from greater than .45  $\mu\text{m}$  to about 5.0  $\mu\text{m}$ ,

whereby underdrainage and overdrainage of cerebral spinal fluid from a patient, to the tube, may be controlled.

23. A drip chamber system for draining cerebral spinal fluid (CSF) from a brain comprising:

a fluid reservoir,

an outlet manifold in fluid communication with the fluid reservoir, the outlet manifold having an outlet,

an inlet manifold in fluid communication with the fluid reservoir, the inlet manifold having an inlet and an outer surface, the inlet manifold having a vent, the inlet manifold having an inside surface, the vent having a filter made of a porous material wherein the pore size of the filter ranges from greater than .45  $\mu\text{m}$  to about 5.0  $\mu\text{m}$ ;

a drainage bag; and

a stopcock connecting the drip chamber to the drainage bag through the outlet.

24. The drip chamber system of claim 23 wherein the pore size of the filter is about 3  $\mu\text{m}$ .

25. The drip chamber system of claim 23 wherein the filter is made of expanded polytetrafluoroethylene (ePTFE).

26. The drip chamber system of claim 23 wherein the porous material is a hydrophobic material.

27. The drip chamber system of claim 23 wherein the vent has a surface area ranging from about .0.8  $\text{cm}^2$  to about 5.0  $\text{cm}^2$ .

28. The drip chamber system of claim 23 wherein the filter is flush with the outer surface of the inlet manifold.

29. The drip chamber system of claim 28 wherein the vent is integral with the outer surface of the fluid reservoir.

30. The drip chamber system of claim 23 wherein the vent is integral with the outer surface of the fluid reservoir.

42. The drip chamber system of claim 41 wherein the pore size of the filter is about 3 $\mu$ m.

43. The drip chamber system of claim 41 wherein the filter is made of expanded polytetraflouroethylene (EPTFE).

44. The drip chamber system of claim 41 wherein the porous material is a hydrophobic material.

45. The drip chamber system of claim 41 wherein the vent has a surface area ranging from about 0.8 cm<sup>2</sup> to about 5.0 cm<sup>2</sup>.

46. The drip chamber system of claim 41 wherein the filter is flush with the outer surfaces of the inlet manifold.

47. The drip chamber system of claim 46 wherein the vent is integral with the outer surface of the fluid reservoir.

48. The drip chamber system of claim 41 wherein the vent is integral with the outer surface of the fluid reservoir.

59. A cerebral spinal fluid (CSF) drip chamber in a cerebral spinal fluid (CSF) drainage system comprising:

a cerebral spinal fluid containing tube having an outer surface; and,

a vent in fluid communication with the tube, the vent having a filter made of a porous material wherein the pore size of the filter is about 3  $\mu$ m,

whereby underdrainage and overdrainage of cerebral spinal fluid from a patient, to the tube, may be controlled.

66. A cerebral spinal fluid (CSF) drip chamber in a cerebral spinal fluid (CSF) drainage system comprising:

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a vent in fluid communication with the tube, the vent having a filter made of a porous material, the pore size of the filter ranging from greater than .45  $\mu\text{m}$  to about 5.0  $\mu\text{m}$ , the filter being flush with the outer surface of the tube,

whereby underdrainage and overdrainage of cerebral spinal fluid from a patient,

to the tube, may be controlled.